

Representantes di Marketing Ta Reuni Aki Den Conferencia Di Marine Fuels-Lubricants

Un Conferencia "Esso Marine Fuels and Lubricants Workshop" a ser tení den Aruba Holiday Inn for di September 17 - 21. Lago atrobe tabata anfitrión na e reunion cual ta ser tení cada dos anja y cual ta ser patrociná door di Esso Inter-America Inc., Coral Gables. Esaki tabata di tres biaha cu e conferencia aki a tuma lugar na Aruba for di tempo cu el a ser organízá diez anja pasá. E anterior reunionnan a ser tení na Colombia na 1971 y na Panama na 1973.

Selección di Aruba como un lugar di reunion ta principalmente pa motibo di nos situacion favorable cual ta haci biahamento mas conveniente pa e participantenan cu ta bin mas tanto di paísnan Norte, Centro y Suramericano y di area di Caribe. Otro factornan cu a contribuí na esaki ta nos refinera, haaf y facilidadnan pa barco mara pafor den lamá locual ta duna

(Continuá na pag. 5)



G. A. Geerman



A. R. Middleton

Alfred Middleton and Glenn Geerman Move Up To New Positions With September 1 Promotion

Effective September 1, 1979, Alfred R. Middleton was promoted to Supervising Engineer in the Technical - Process Technical Services Division, and Glenn A. Geerman to Senior Engineer in the Crude & Products Coordination Division of the Business Planning and Supply Department.

Alfred transferred to Lago from

Exxon Company, U.S.A., Bayway Refinery on July 1, 1978, and was assigned to Technical - MCS as a Sr. Engineer. Al, who has four year's experience in computer process control and engineering design work at Bayway, has been involved in process control studies for the operating units at Lago.

He holds a bachelor's degree in Chemical Engineering from Rutgers State University and a Master's degree from the Purdue University.

Alfred followed several courses at Exxon, U.S.A., including Refinery Technology Course, Process Engineering, Refinery Economics and Investment Evaluation courses.

Glenn A. Geerman joined Lago in 1973 after obtaining a B.S. degree in Electrical Engineering from the University of Rhode Island. He began working in the Instrument Engineer-

(Continued on page 5)

Lago's 1978 Safety Record Draws High Praise Employees Achieve 15th NSC First Place Award

Lago's safety performance during 1978 was rated "tops" by the National Safety Council and earned the highest award in the 1978 Contest: the award of honor. In a recent letter from NSC President Vincent L. Tofany to Lago President G. E. Golden, Mr. Tofany congratulates "the men and women of your organization for making such an excellent record possible." (See letter on page 3).

In an interview with Lago's Industrial Hygiene/Safety Administrator Everett Beaujon, the Aruba Esso News asked him several questions regarding this achievement:

Q. What does the 1978 National Safety Council Award mean to Lago?

A. Although Lago has won several awards in the past, the 1978 safety award has special meaning because it marks an impressive achievement in Lago's history: for the first time we have attained a full calendar year, that is from January 1978 to Decem-

ber 1978 of operations without a single disabling injury on the job.

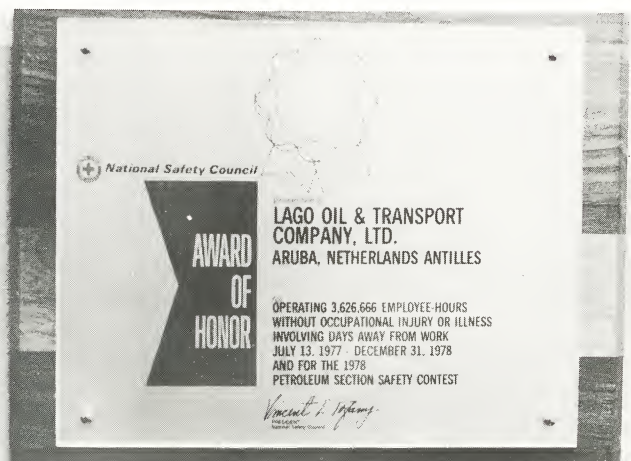
Q. Why are we so much safer? What has changed? Is it because we have more sophisticated safety equipment in the refinery?

A. You can have the most sophisticated equipment and safety program in the world, but a good safety

(Continued on page 3)

The 1978 NSC Safety Award represents continued safety at Lago made possible by ceaseless efforts by all Lago employees.

E emblema di seguridad pa 1978 di NSC ta representa seguridad continuo haci posible pa esfuerzonan constante di tur empleado di Lago.



ARUBALago Oil & Transport Co., Ltd.
Aruba, Netherlands Antilles

Lago T-Shirts Carry Message Of Employees' Safety Feat

In recent years the trend has been to wear T-shirts with a variety of messages printed on them, such as: "You Are the Apple of My Eye", "Aruba Jail", "I Love Aruba," etc. Others have pictures of products, faces of popular people, animals, cars, etc., while others have the name or photograph of the person wearing the T-shirt.

Lago employees have also followed this "fashion" or "fad" and they are going around these days sporting a very special T-shirt boasting their safety accomplishments on the job for which they can all be proud of. The shirts, marked "Two Years Safe - 5,000,000 Manhours" represent two years - July 12, 1977 - July 12, 1979 of safety performance on the job, and the 5,000,000 manhours attained recently without a single lost time accident. Without the efforts of each and every Lago employee these achievement could not have been possible.

After this outstanding milestone, employees have set another goal: to complete two calendar years - January 1, 1978 - December 31, 1979 and 6,000,000 manhours without a disabling injury on January 1, 1980.

The Safety T-shirts, available from (Continued on page 5)

Editor : Mrs. L. I. de Cuba

Photographs by : Joe's Photographic Service

Printer : Verenigde Antilliaanse Drukkerijen N.V.

Lovely Magaly Maduro of Seroe Colorado was crowned Miss Aruba in the Aruba Caribbean Hotel on Sept. 8.

The 20 year old beauty, who is daughter of Frits Maduro of Industrial Hygiene/Safety, represented San Nicolas in the Miss Aruba contest.

Magaly will be Aruba's candidate in the 1980 Miss Universe Pageant which will possibly be held in Aruba.

E simpatica Magaly Maduro di Seroe Colorado a ser corona Miss Aruba den Aruba Caribbean Hotel dia 8 di September. E belleza, di 20 anja di edad, cu ta yiu di Frits Maduro di Industrial Hygiene/Safety, a representa San Nicolas den e concurso pa Miss Aruba. Magaly lo ta Aruba su candidata na e Certamen di Miss Universe 1980 cual probablemente lo ser teni aki na Aruba.



Thirty-Eight Marketing Representatives Discuss Esso Marine Fuels/Lubricants Activities Here

An Esso Marine Fuels and Lubricants Workshop Conference was held in the Aruba Holiday Inn from September 17 - 21. Lago again was host at the bi-annual meeting which is sponsored by Esso Inter-America Inc., Coral Gables. This was the third time that the conference took place in Aruba since it was organized ten years ago. Previous meetings since then had taken place in Colombia in 1971 and in Panama in 1973.

The selection of Aruba as a meeting place is mainly due to our favorable location which makes traveling more convenient to the participants who are mostly from North, Central and South American countries and the Caribbean area. Other contributing factors are our refinery, harbor and offshore mooring facilities which give participants a better insight of the petroleum industry.

The thirty-eight participants attending the conference were Marketing representatives from Argentina, Barbados, Brazil, Canada, Chile, Jamai-

ca, Mexico, Panama, Puerto Rico, Taiwan, Trinidad, Uruguay, the U.S.A. and the United Kingdom, Curacao and Aruba. This group included Larry Seykora of EIA, Coral Gables, who coordinated the conference and was also one of the instructors. The other instructors were: Hugo Marafioti and Bill Myers, also of EIA, Coral Gables, and Dick Daniels, Vinnie Peterson and Bob Thornton of EIC, New York, and Derek Davidson of Abingdon, United Kingdom.

Various topics were reviewed during the five-day workshop, mainly related to Esso Marine Fuel products and machinery, including various type Diesel Engines, bunkering operations, product advertising and sales promotion. The daily sessions were conducted utilizing flip charts, blackboard, vugraphs and several films on the topics discussed. The participants took active part in exchanging views and discussing specific problems in their respective areas.

As part of the program, the participants were taken on a refinery tour (Continued on page 5)



With the NFAR in the background, our charming Miss Aruba, Magaly, wearing Lago's Safety T-shirt in the latest fashion, knotted to one side, poses with her proud papa.

Cu NFAR den bista patras, nos simpatica Miss Aruba, Magaly, bisti cu Lago su T-shirt di seguridad, konopa na un banda manera ta na moda awor, ta para aki cu su tata orguyoso.

Lago's 1978 Safety Record Draws High Praise

(Continued from page 1)

performance can only be achieved by dedicated, safety-conscious people, who are aware that safety is essential in their job in a complex refinery such as ours. That is why one of the most important factors in our refinery is the strong determination employees have to work safely. However, we have placed more emphasis on the existing programs to reach employees in all aspects of our operations. Our safety awards are proof of employees' positive response.

Q. You say that Lago's continuous safety programs have had an impact on employees. What do these programs involve?

A. Well, mainly safety education. By holding weekly safety talks in all plant divisions to draw employees' attention constantly to the many potential hazards in the refinery. From time to time we conduct safety training sessions on the use of safety and protective equipment, such as the Scott Airpak breathing apparatus and H2S training sessions. Employees are encouraged to be on the lookout for unsafe conditions and report them to their supervisors. We have also stressed safety procedures through a more simplified, pocket-type work permits manual. And, of course we encourage safety in our Safety Newsletters Boletin, Esso News and Family Safety.

Q. You mentioned that this was the first time that Lago completed a whole calendar year without a disabling injury. How did we earn previous first place awards?

A. Our previous first place awards were won by having the lowest accident frequency rate from among similar refineries worldwide. In group comparison, not only the accident frequency rate counts, but the severity of the accident had during the whole year makes all the difference. Two or more companies may have similar accident frequency rates, but the nature or severity of the accident and the total safe manhours achieved have to be considered.

Q. How often does Lago evaluate its safety programs?

A. The safety programs are evaluated quarterly and are carefully analyzed to make the necessary changes for improvement. Emphasis is invariably placed on areas where more near-misses occur and measures are taken to prevent their reoccurrence.

Q. 1978 is considered Lago's Year of Safety. But we have been safe on the job much longer. What about 1979?

A. Yes, we have been safe on the job since July 12, 1977 - thus almost two years and three months. As mentioned before, 1978 was a special year because we worked safely a whole calendar year without a disabling injury. We are now striving towards completing two calendar years without a disabling injury and 6,000,000 manhours worked without a single disabling injury. If we accomplish this important milestone, we can truly say that 1979 is Lago's Year of Safety Records.



"Employees have a positive attitude towards safety" says E. Beaujon.

"Empleadonan tin un atitud positivo pa seguridad" E. Beaujon ta bisa.



**National
Safety
Council**

August 24, 1979

Office of the President

Mr. G. E. Golden
President
Lago Oil & Transport Company, Ltd.
Industrial Relations Department
Aruba Netherlands, Antilles

Dear Mr. Golden:

With extreme pleasure, I extend to you and the employees of the Lago Oil and Transport Company my sincerest appreciation for the outstanding safety record which you have achieved. Your performance has earned the National Safety Council's Award of Honor.

This prestigious award is the highest order of recognition for outstanding occupational safety records. It means that the Lago Oil and Transport Company, Refining-Aruba Netherlands, Antilles has reached an exemplary level of safety performance.

Successful safety programs happen when people work together toward a common goal. The program must be guided by able, dedicated leaders. Much of the safety success story at the Lago Oil and Transport Company can be attributed to your leadership and dedication to making people healthier, happier and safer.

On behalf of the National Safety Council and the voluntary safety movement, thank you for your contributions to fighting accidents and occupational illnesses. And please convey my congratulations to the men and women of your organization for making such an excellent record possible.

Sincerely,

Vincent L. Tofany
Vincent L. Tofany

444 North Michigan Avenue
Chicago, Illinois 60611
312-527-4800

A Nongovernmental
Nonprofit
Public Service Organization

Traduccion di e Carta di Presidente di National Safety Council na Presidente y Empleadonan di Lago

Sr. G. E. Golden
Presidente

Lago Oil & Transport Company, Ltd.
Industrial Relations Department
Aruba, Netherlands Antilles

Apreciado Sr. Golden:

Cu sumo placer, mi ta extendende na Bo y na empleadonan di Lago Oil and Transport Company mi mas sincero aprecio pa e record di seguridad sobresaliente cu Boso a alcanza. Boso actuacion a merece e Emblema di Honor di National Safety Council.

E prestigioso emblema aki ta esun di mas halto den reconocimiento pa recordnan di seguridad ocupacional mas sobresaliente. Esaki kier meen cu Lago Oil & Transport Company, Refining-Aruba Netherlands Antilles a alcanza un nivel ehemplar den actuacion di seguridad.

Programanan exitoso di seguridad ta socede ora cu hendenan ta traha hunto pa alcanza un meta comun. E programa mester ser guiá door di lidernan capaz y dedicá. Gran parti di e historia di e exito di seguridad na Lago Oil and Transport Company por ser atribuí na Boso liderato y dedicacion pa haci hende mas salud, feliz y sigur.

Na nomber di National Safety Council y e organizacion voluntario di seguridad, danki pa Boso contribucionnan pa combati accidentes y enfermedadnan ocupacional. Y sea asina bon di extende mi felicitacion na e hombernan y muhernan di Bo organizacion pa haci un record excelente asina posible.

Sinceramente,

Firmá: Vincent L. Tofany

Lago Su Record di Seguridad 1978 Ta Haya Elogio Empleadonan Ta Alcanza Di 15 Emblema di NSC

Lago su actuacion di seguridad durante 1978 a ser clasificá como "lo mehor" door di National Safety Council y a merece e premio mas halto den e Concurso di 1978: e emblema di honor. Den un reciente carta di Presidente di NSC Vincent L. Tofany na Presidente di Lago G. E. Golden, Sr. Tofany ta felicita "e hombernan y muhernan den Bo organizacion cu a haci un record excelente asina posible." (Mira e carta).

Den un entrevista cu Lago su Industrial Hygiene/Safety Administrator Everett Beaujon, Aruba Esso News a puntrele varios pregunta tocante e premio lográ.

P. Kiko e Emblema di Seguridad di National Safety Council 1978 ta significa pa Lago?

C. Aunque cu Lago a gana varios emblema di seguridad den pasado, esun di 1978 tin un significacion special pasobra el ta representa un hazanja impresionante den Lago su historia: pa di promer biaha nos a logra un anja calendario completo - esey ta di Januari 1978 - December 1978 - di operacionnan sin un solo desgracia incapacitante na trabao.

P. Pakiko nos ta asina hopi mas sigur? Kiko a cambia? Por ta e motibo cu nos tin equiponan di seguridad mas moderno den nos refinaria?

C. Bo por tin e equiponan mas sofisticada of moderno y e mehor programanan di seguridad na mundo,

pero un bon actuacion di seguridad por ser logra solamente door di hendenan dedica y conciente di seguridad, kendenan ta na haltura cu seguridad ta esencial den nan trabao den un refinaria manera esun di nos. Ta pesey uno di e factornan mas importante den nos refinaria ta e determinacion firme cu empleadonan tin pa traha cu seguridad. Nos programan basico di seguridad no a cambia hopi realmente. Sinembargo, nos a pone mas enfasis ariba e programanan existente pa nan yega na empleadonan den tur aspectonan di nos operacionnan. Nos emblemanan di seguridad ta prueba di empleo nan reaccion positivo.

P. Bo ta bisa cu Lago su programanan continuo di seguridad tabatin un impacto ariba empleadonan. Kiko e programanan aki ta envolve?

C. Wel, principalmente educacion tocante seguridad. Door di tene semanalmente charlanan di seguridad den tur divisionnan den planta pa hala empleado nan atencion constantemente na e potencial peligranon den refinaria. Cada tanto tempo tambe nos ta conduci sesionnan di entrenamiento tocante seguridad y ariba uso di equiponan di seguridad y proteccion, manera e aparato pa hala rosea Scott Airpak y entrenamiento tocante H2S. Empleadonan ta ser encurasha pa ser alerta pa condicionnan inseguro y pa reporta nan

T-Shirt Di Lago Ta Elogia Hazanjadi Seguridad Alcanza Pa Empleadonan Na Trabao

Den reciente anjanan a bira un costumber pa bisti "T-shirt" cu un variedad di mensahe ariba nan, manera: "You Are the Apple of My Eye", "Aruba Jail", "I Love Aruba", etc. Otronan tin portretnan di producto, cara di hendenan popular, bestia, auto, etc., mientras cu tin otronan cu tin e nomber of portret di e persona cu ta bisti e "T-shirt".

Empleadonan di Lago tambe a sigui e "moda" of "estilo" aki y nan ta camnando rond cu un T-shirt masha special bisti cual ta elogia nan logro den seguridad na trabao pa lo cual nan tin hopi orguyo. E camisanan, marca "Two Years Safe - 5,000,000 Manhours" ta representa dos anja - Juli 12, 1977 - Juli 12, 1979 di actuacion cu seguridad na trabao, y e 5,000,000 ora lográ recientemente sin un solo accidente cu a causa perdida di tempo na trabao. Sin e esfuertonan di cada uno di empleadonan di Lago lo no tabata posible pa logra esakinan.

Despues di e hazanjanan sobresaliente aki, empleadonan a establece un otro meta: pa completa dos anja di calender - Januari 1, 1978 - December 31, 1979 y 6,000,000 ora sin un accidente incapacitante dia 1 di January 1980.

E "T-shirt" nan di seguridad, cualnan ta obtenible na Industrial Hygiene /Safety Division, ta den e siguiente tamanjonan: chikito, mediano, grandi y extra-grandi. Empleadonan cu tabata cu vacantie, hospitaliza of malo na cas, mester tuma contacto cu nan supervisor pa haya un di e "T-shirtnan" aki.

na nan supervisor nan. Tambe nos a pone enfasis ariba reglamentonan di seguridad den un manual pa permit di trabao mas simplifica y cu un tamanjo cu empleadonan por tin cu nan tur ora. Y, naturalmente nos ta encurasha seguridad den nos Safety Newsletter, Boletin, Esso News y Family Safety.

P. Bo a menciona cu esaki tabata e promer biaha cu Lago a completa un anja di calender completo sin un accidente incapacitante. Com nos a merece e anterior promer premionan?

C. Nos anterior promer lugarnan a ser gana cu e frecuencia di accidente mas abao for di entre refinarianan similar cu nos rond mundo. Den comparacion pa grupo, no ta solamente e frecuencia di accidente ta conta, pero tambe e severidad di e
(Continúa na pagina 5)

Participants in the Esso Marine Fuels and Lubricants Workshop Conference toured the refinery and visited the ship "Esso Portland" in the San Nicolas Harbor.



Participantenan den Esso Marine Fuels and Lubricants Workshop Conference a bishita refinaria y a bai abordo di "Esso Portland" den Haaf di San Nicolas.



Conferencia Marine Fuels/Lubricants

(Continuá di pag. 1)

participantenan un mehor comprendemento di productonan di industria petrolero cual nan ta representa.

E trinta-y-ocho participantes cu a atende e conferencia tabata representantes di Marketing for di Argentina, Barbados, Brazil, Canada, Chile, Jamaica, Mexico, Panama, Puerto Rico, Taiwan, Trinidad, Uruguay, Merca y Reino Uni, Curacao y Aruba. E grupo aki ta inclui Larry Seykora di EIA, Coral Gables, kendé a coordina e conferencia y tambe tabata uno di e instructonan. E otro instructornan tabata: Hugo Marafioti y Bill Myers, tambe di EIA, Coral Gables, y Dick Daniels, Vinnie Peterson y Bob Thornton di EIC, New York, y Derek Davidson di Abingdon, Reino Uni.

Varios topico a ser tratá durante e "workshop" cual a dura cinco dia,

relacioná cu productonan y maquinaria di Esso Marine Fuels, incluyendo varios tipo di Motor Diesel, operacionnan di bunker, propaganda di producto y promocion di venta. E sesionnan diario a ser conduci utilizando flip charts, borchi, vu-graphs y varios película tocante e tópico cu nan a trata. E participantenan a tumá parti activo den intercambio di opinion y den discusion di problema nan específico den nan area respectivo.

Como parti di e programa, participantenan a ser hibá ariba un tour di refinaria y nan a haya e oportunidad tambe di bai abordo di e bapornan "Esso Portland" den haaf di San Nicolas y "Esso Flame" den haaf di Oranjestad, caminda nan a mira e sala di motornan y control y a mira aplicacion di e productonan di petroleo cual nan ta representa.

Record di Seguridad

(Continuá di pag. 4)

accidente durante henter un anja ta loque ta haci tur e diferencia. Dos of mas compania por tin e mesun frecuencia di accidente, pero ta e tipo of severidad di e accidente y e total ora di trabao alcanza mester ser considera.

P. Cu ki frecuencia Lago ta evalua su progamanan di seguridad?

C. E programanan di seguridad ta ser evalua cada tres luna y ta ser analizá cuidadosamente pa haci e cambionan necesario pa mehoracion. Enfasis invariablemente ta ser poní ariba e areanan caminda tabatin varios casi-accidentes y medidanan ta ser tumá pa preveni cu nan socede atrobe.

P. 1978 ta ser considera como Lago su Anja di Seguridad. Pero nos tin mas tempo cu seguridad na trabao. Kiko ta di 1979?

C. Si, nos ta trahando cu seguridad for di 12 di Juli 1977 - pues mas of menos dos anja y tres luna. Manera a ser mencioná anteriormente, 1978 tabata un anja special pasobra nos a traha cu seguridad henter un anja di kalender sin un accidente incapacitante. Awor nos ta haciendo esfuerzonan pa completa dos anja di kalender sin un accidente incapacitante y 6,000,000 ora di trabao sin un solo accidente incapacitante. Si nos logra e gran hecho memorable aki, anto berdaderamente nos por bisa cu 1979 ta Lago su Anja di Recordnan di Seguridad.

Middleton, Geerman Promoted

(Continued from page 1)

ing Section of the Mechanical Engineering Division as a Contact Engineer for the Refining Control Center. Later on he had several acting assignments in the Instrument Maintenance Section of Mechanical Department, and was Lago's representative on RTC (Refining-Technical-Committee) meetings on instrumentation held at various affiliated companies.

In November 1977, Glenn was one of the members of an Oil Loss Task Force which analyzed the Company's Oil Loss reporting system. When he completed this assignment early this year, Glenn transferred to the Chemicals & Commercial Section of the Crude & Products Coordination Division where he is involved in the coordination of sulfur, sulfuric acid and naphthenic of his contributions to

naphthenic acid sales and purchases. His September 1 promotion is in recognition of his many contributions to this division.

He has followed many management development courses at Lago and attended a Foxboro Instrumentation Course in Massachusetts and a Petroleum Measurement Course in Baytown, Texas. A volunteer fire brigade member, Glenn has followed many fire fighting courses.

Marketing Conference

(Continued from page 2)

and had the opportunity to go on-board the ship "Esso Portland" in the San Nicolas Harbor and "Esso Flame" in the Oranjestad Harbor where they viewed the engine room and control rooms and saw the applications of the petroleum products which they represent.

Lago T-Shirts

(Continued from page 2)

the Industrial Hygiene/Safety Division, come in the following sizes: small, medium, large and X-large. Employees who have been on vacation, hospitalized or T.I.Q. should contact their supervisor for their T-shirt.

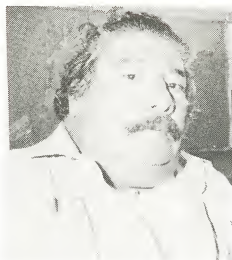
Milestones 30 and 25 - Year Service Awards



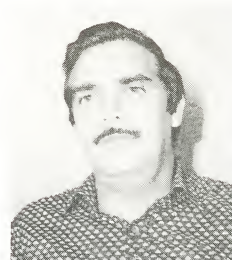
Robert E. M. Marks
Tech. - Energy Conser-
vation
25 years
August 23, 1979



Carlos B. Bislip
Techn. - Proj. Dev. Div.
30 years
August 31, 1979



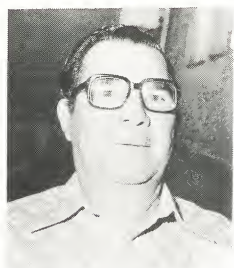
Luis F. Marval
Mechanical - Electrical
25 years
September 6, 1979



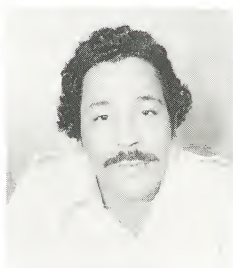
Rafael S. Swaen
Controller's Cr. & Proc.
Acctg.
25 years
September 9, 1979



Saturnino J. Giel
Mechanical - Mat. P&C
25 years
September 10, 1979



Leonardo Tromp
Mechanical - Instrument
25 years
September 14, 1979



Ramon Buckley
Process - H.D.S.
25 years
September 15, 1979



Jacinto Werleman
Controller's - M.C.S.
30 years
September 16, 1979



Technical Department employees of LVS Class 1949 who received their 30-year service award on September 12: Leonard A. Peterson, Edgard Maduro, Patricio L. Kock and Alejandro Tromp shown here with Technical Manager Dick Reitz, Division Superintendents Don Thurber and Tom Golda.



L V S CLASS 1949



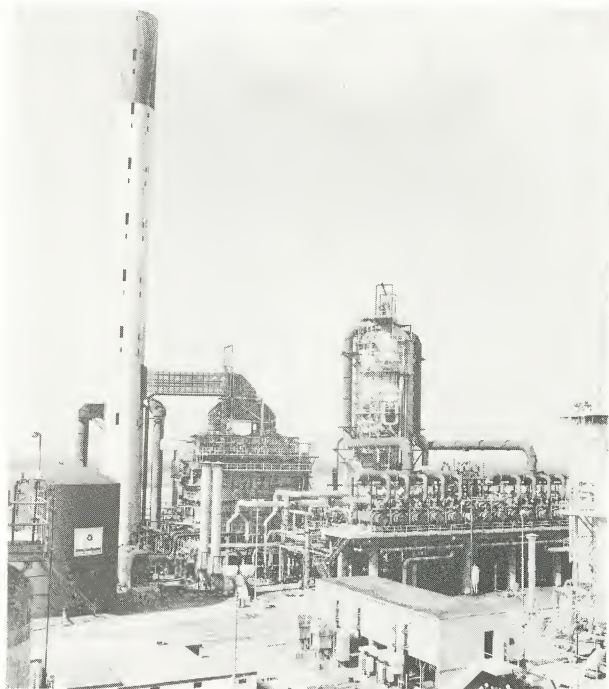
30-Year service watch recipients from Class LVS 1949 from the Process Department are: front row: Geronimo Croes, Jose M. Yarzagaray, Abelino Thijzen. Second row: Ramiro Gil, Mathias Wouters, Marcelino Albertz and Paul E. Hassell. Third row: Laurens M. Koolman and Juan V. Yarzagaray. Fourth row: Napoleon Wester, Albino Martijn, Alejandro Boekhoudt. In the background, H.D.S. Division Superintendent Julio Curiel, Utilities Division Superintendent J. V. Croes, Fuels Division Superintendent Martines Leo, Oil Movements Division Superintendent Harold Wilkinson and Process Manager Don Gardner (rear).

30-Year award recipients from the Mechanical Department, front row: Guillermo Yarzagaray, Stanislas M. L. Lejuez, Nercisio Krosendijk and William Woodley; second row: Basilio E. Flemming, Rosindo Frolijk, Francisco Geerman and Mario Croes. In the background are Mechanical Manager Walter J. Lambertin, Luis S. F. Anjie, Ken Brook and Michel Landaiche, Division Superintendents.

Conservacion di energia -den e caso aki steam - ta ser logra aki cu e sistema di precalentador di aire di combustion. E mesun proyecto di conservacion di energia a ser realiza na V3AR.



Energy conservation - in this case - steam - is achieved here by preheating combustion air at V2AR unit. Identical facilities were installed also on V3AR.



Surplus Low Pressure Steam Used To Preheat Combustion Air To Lago's Vacuum Pipestills

Lago's two powerhouses with their dozen fuel fired boilers produce the bulk of the Lago refinery's steam requirements. The balance of the refinery's steam requirements come from offsite unfired boilers utilizing process waste heat from the operating units. Steam pressure levels most commonly found at Lago are 410 psig (high pressure), 150 psig (process) and 30 psig (exhaust). Maintaining an exact balance between production and consumption in these different steam categories is rarely possible in a refinery as diversified as ours. Recently Lago was faced with an acute problem of surplus 30 psig steam in the Hydro-desulfurization Units. (HDS).

Additional use of the surplus steam in an effective manner; such as, for tower stripping, further heat integration or by eliminating turbine exhausts by switching to electric drivers in the HDS area proved to be impractical. The easiest solutions to the problem would have been to vent the steam or else to condense it and return it to its original state — water. The first solution would be very costly indeed. The second would be less costly because although heat of the steam is lost to cooling water the condensate is recovered. But in a refinery both heat and water are highly valuable forms of energy and the lost energy of recondensing the steam would increase operating costs.

The problem of the surplus 30 psig steam was resolved last year follow-

ing the design and installation of combustion air preheaters at Lago's two Vacuum Pipestills V2AR and V3AR. The steam/air preheaters installed in the combustion air ducts of the Vacuum Pipestills now recover not only the water but also the heat of condensation of the surplus steam, and use this energy effectively to preheat combustion air. Since the combustion air is at ambient temperature or about 85° when entering the furnace burners, part of the fuel fired previously had to heat up the combustion air.

The surplus 30 psig steam is now routed to the Vacuum Pipestills preheaters, where it raises the combustion air temperature to about 200°F. This results in reducing the fuel fired in the furnace by approximately 3%. The steam/air heat exchange process takes place in a cross-flow arrangement. The steam condensate is continuously removed and routed via the Vacuum Pipestills pipe alley and the north-south HDS pipe rack to a condensate disengaging drum. The condensate — thus steam returned to water — is re-used as boiler feed water and recycled back as higher pressure steam.

The preheater or tube bundle, which is essentially a large-size (7ft x 7ft) radiator, was initially installed on the V2AR unit during turnaround in mid-1978. The installation included accessories such as 400 ft of 6 -inch steam supply line, 650 ft.

(Continued on page 8)

Steam Surplus Ta Recalenta Aire Di Combustion Pa Lago Su Vacuum Pipestillnan

Lago su dos Powerhousenan cu nan dozona di boilernan cu ta kima combustible ta produci mayoría di Lago su necesidadnan di steam pa refinera. E resto di refinera su requerimientonan di steam ta bini for di boilernan cu no ta kima combustible den planta y cu ta usa e calor cu ta bai perdi den proceso for di plantanan di operacion. Nivelnan di precision di steam cu mayoría parti ta ser hayá na Lago ta 410 psig (liber pa duim cuadrá), 150 psig y 30 psig. Raramente ta posible pa mantene un balanza exacto entre produccion y consumo den e diferente categoríanan di steam den un refinera tan diversificá manera di nos. Recientemente Lago a ser confrontá cu un problema serio di steam surplus di 30 psig den unidatnan di hidrodesulfurizacion (HDS).

Uso adicional di steam surplus na un manera eficaz, por ehempel, pa uso den "towerman", mas integracion di calor, of door di elimina escapanan di turbina door di pasa over pa impulsadornan electrico den area di HDS, a resulta di ta impractico. E solucionnan mas facil pa e problema (Continuá na pag. 8)

ILLOGICAL WORRIES

We worry about heart attacks and cancer, yet never bother to take the necessary precautions to prevent them.

... We worry about the kids eating the proper foods... then leave household poison lying around carelessly.

... We worry about crashing in an airplane... then stand on the top step of a rickety ladder to do painting job.

... We worry about the kids when they are swimming... then go too far out into the sea without a life preserver when fishing.

... We worry about the little nick or scratch on the new car's paint job... then ignore "minor" cuts and scratches and other injuries to our own bodies.

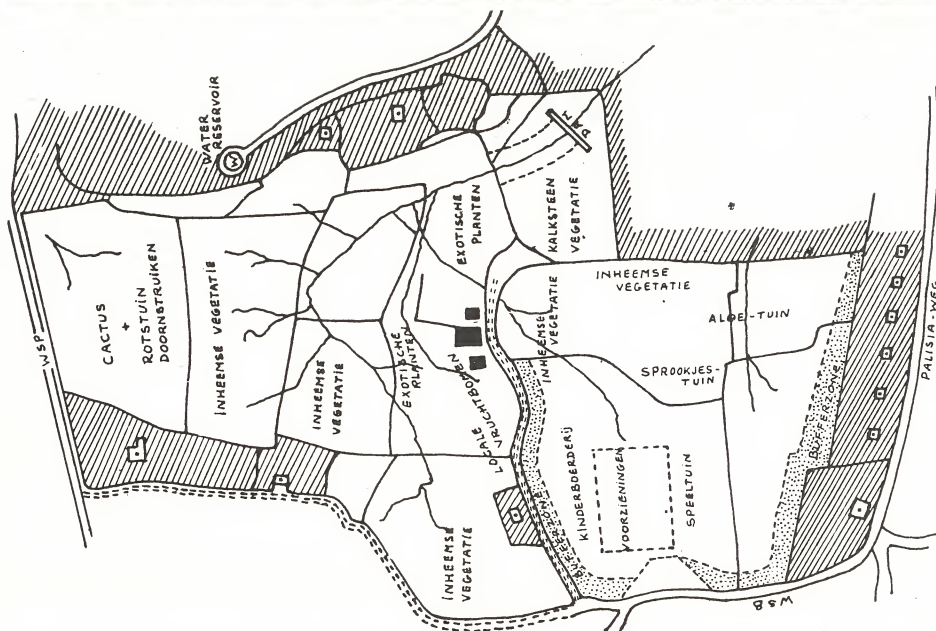
... We worry about the kids driving too fast when they're out with the car... then go ahead and ignore speed limits ourselves.



Acting Lt. Governor of Aruba Urbano Maduro lays the cornerstone for the Botanical Garden - a project of the Aruba Jaycees Female Chapter - at Weg Seroe Blanco in San Nicolas on Saturday, September 22. He is assisted by Julio Maduro, committee member and adviser for the project. At rear, Mrs. Melva Maduro-De Palm of Aruba Jaycees and Netherlands Antilles Jaycee President Ruben Page.



Gezaghebber interino di Aruba Urbano Maduro ta pone e promer piedra pa e Jardin Botanico - un proyecto di Aruba Jaycees Female Chapter - na Weg Seroe Blanco na San Nicolas ariba Diasabra, 22 di September. El ta ser asisti door di Julio Maduro, miembro di comision y a la vez consehero pa e proyecto. Para pa tras ta Sra. Melva Maduro-de Palm di Aruba Jaycees y Presidente di Jaycees pa Antillas Neerlandes Ruben Page.



Surplus Steam

(Continued from page 7)

of 3-inch condensate return line, a steam trap, and minor instrumentation. Because of the successful operation of the preheater at V2AR, identical facilities were installed on the V3AR unit.

Steam Surplus di Baho Presion

(Continuá di pag. 7)

lo tabata pa permiti steam bai den aire of si no, condensese y debilbe na su estado original — esta awa. E promer solucion lo tabata berdaderamente costoso. E segundo lo a resulta menos costoso pasobra aunque cu calor di e steam ta ser perdí den friamento di awa, ambos calor y awa ta forman altamente valioso di energía y e energía perdí pa bolbe converti e awa den steam lo causa aumento den gastonan di operacion.

E problema di steam surplus di 30 psig a ser resolví anja pasá despues cu precalentadornan di aire pa combustion a ser disenjá y instalá na e fornunan di Lago su dos Vacuum Pipestillnan V2AR y V3AR. E precalentadornan di steam y aire instalá den e conducto di aire pa combustion di e fornunan di Vacuum Pipestill awor ta recobra no solamente e

awa, sino tambe e calor di condensacion di e steam surplus, y ta usa e energía aki eficazmente pa precalenta aire pa combustion pa e fornunan. Siendo cu e aire pa combustion ta na temperatura ambiental of como 85°F ora cu e drenta den e "burners" di e fornu, parti di e combustible antes mester a ser kimá pa calenta e aire di combustion.

E steam surplus di 30 psig awor ta ser pasá pa e precalentadornan di aire di Vacuum Pipestill caminda el ta hiza e temperatura di aire di combustion te na como 200°F. Esaki ta resulta den reduccion di combustible kimá den fornu te na aproximadamente 3%. E proceso di intercambio di calor di steam/aire ta tuma lugar den un sistema den cual e steam y aire ta cruza otro. E steam condensá ta ser continuamente sacá y pasá via e tubería di Vacuum Pipe-

still y di HDS cu ta corre di norte pa sur te na e drum den cual e steam condensá ta separá. E producto condensá - esta steam cu a bira awa — ta ser usá atrobe como awa pa boiler y ta ser pasá un biaha mas como steam di alta presion.

E precalentadornan of "tube bundle", cual ta esencialmente un radiador di tamanjo grandi (7'x7'), a ser instalá promer biaha ariba unidad V2AR durante cu el tabata abao pa inspeccion y reparacion mei-mei di 1978. E instalacion a inclui accesorios manera 400 pia di linja di suministro di steam di 6 duim, 650 pia di linja di 3 duim pa debilbe producto condensá, un "steam trap", y varios instrumentacionan chikito. Basa ariba e operacion exitoso di e precalentadornan na V2AR, facilidadnan identico a ser instalá ariba e unidad V3AR.